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Improving an efficiency of agricultural territories on the basis of space-based and geoinformation technologies

Scherbinina T., Mustafin R., Panasyuk M.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, International Journal of Pharmacy and Technology. All rights reserved.This article is devoted to the development and use of space-based and geoinformation technologies allowing for agricultural enterprises, state and municipal authorities to carry out an objective assessment of agricultural areas, to analyze and give a forecast of development of agro-business in specific areas and territories. The aim of the study is to determine the territorial features of agricultural plots. The object of research is the territory of the agricultural enterprises in the Republic of Tatarstan with a total area of about 10 thousand hectares, including an area of 7500 hectares of arable lands with their unique physical and geographical characteristics. In this work we have used traditional geographical techniques: mapping, based on methodological foundations of thematic and complex mapping, and on the achievements in the field of geo-information technologies, comparative descriptive method, spatial analysis method, and statistical method. As a result of the study, a method was developed on evaluating the efficiency of crop production on the territory of individual agricultural areas of enterprises with space-based and geoinformation technologies what will allow timely management decisions to make; and also it is suggested to introduce a specially developed hardware and software for monitoring and implementation of measures aimed at improving the efficiency of use of agricultural land.

Keywords

Agriculture, Farmland map, Geographic information system, Geological interpretation, Geospatial data, Ore-controlling structure, Space-based images, Space-based technology